Making The Connection: Are We Forgetting To Communicate?

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When your job is a research job, it is easy to spend plenty of hours in the lab, and to work in international environments, far from your hometown, mainly developing friendships with other people involved in a research job, leading to multicultural communities where it is possible to share ideas, hypotheses and, even more simply, the genuine passion and amazement that move every researcher to pursue his studies despite all the frustrations which come as the other side of the medal.

This looks like a beautiful scenario, but it leads to some crucial consequences that should be taken into account. For each honest researcher, every step of investigation, independently on the research field, is governed by the rule of the scientific method, and every advance, from a single experiment that works, to the rare and great discoveries that allow the big jumps in our knowledge, is welcomed with curiosity, optimism and enthusiasm, and with the pride to be, even if as a little drop in the ocean, part of the ‘team’. But what is missing?

For an ‘insider’, it is crystal clear that science tries to explain natural phenomena, and to apply the current knowledge to ameliorate technologies and life style, and that every theory is just the starting point to push forward the scientific progress. But, despite all this, especially in the high-tech and wealthy western societies, we are facing a symptomatic and anachronistic ‘war’ against the scientific discoveries, and we assist to the rise of movements which, if at the beginning could be considered just as funny or pathetic, are now having an impact on the society itself. Just to make an example, we can consider the anti-vaccination group: there is no scientific reason to follow this theories; still, we are assisting to the representations of former eradicated pathologies, and the consequences of that are there for all to see.

As a neurophysiologist, talking about my research in non-scientific environments, I face a sort of dualistic reaction: there is an innate curiosity and interest in my interlocutors, which is often followed by a general worry/disbelief about the technologies we are now able to use to manipulate, at least in rodents, the brain functions. Given all the efforts every single researcher puts into his studies, and considering that science is for the whole world, I started wondering... what if, in all these efforts, we are forgetting something?

Life sciences, more than other fields, are closer to the everyday life: to think about the body physiology, the brain functions, the immune system function is more ‘human-sized’, more familiar, than debating about subatomic particles or galaxies. This sort of ‘proximity’, however, sometimes leads to the belief that everybody can be in charge to formulate his own theories, but science is not based on democracy, and the consequences of these are recapitulated in the paradigmatic case of the anti-vaccination group.

Unfortunately, too often the scientific community is seen so far away by people, and it is easier to follow non-scientific, accommodative conspiracy theories than getting closer to the realism of science. I think that this is, first of all, a point lost for the scientific community. And that is why, from higher to lower levels, each person involved in a scientific career should make an effort and reconsider the vital importance of an effective and capillary divulgation system.

Sometimes we are too locked in our labs, in our little groups of ‘science friends’, which we do not even realize that most people have no idea of what we are doing. Even
in conferences ‘in the field’, sometimes the levels of specialization are so high that is difficult to follow the presentations of researchers working on slightly different subjects, and sometimes, there is also no effort by the speakers to make their work affordable by a broad audience. Things cannot ameliorate if we move to a non-scientific audience.

Of course, this is a simplified version of the story, and the first will of the researcher cannot be divulgation. Nevertheless, the importance of strengthen the connection between the bench and the next-door neighbor is fundamental, and the commitment for this has to start from the researchers themselves.

We are the ones that look at a molecular mechanism unraveled, to the potentiality of tools such as optogenetics or chemogenetics with the excitement and enthusiasm of a child, and so, we should be the ones in charge to find the words, the channels, the methods to effectively share our excitement with the other people. There are already several instruments that facilitate this communication, but there is still much to be done, especially in understanding that using some of our time to improve communication is not a waste of time, but it is the best way to guarantee future and space to the research we love so much.